```
FILE 'CA, CAPLUS, CAOLD, BIOBUSINESS, BIOSIS, CEN, CIN, CSCHEM, CSNB,
     IFICDB, TOXLIT, USPATFULL, IPA, PIRA, PROMT, VTB' ENTERED AT 09:44:27 ON
     13 MAY 1999
L2
            619 S 29759-38-4
L3
        1901646 S EXTRACT?
              6.8 L2 AND L3
L5
             10 S L1 AND L3
         545108 S DISTILL?
L7
             11 S (L1 OR L2) AND L6
        1514316 S SOLVENT
L8
             53 S L8 AND (L1 OR L2)
L10
        1954777 S ROSEMARY OR ORGANIC OR SAGE OR THYME OR GINGER OR MARIGOLD
L11
             15 S L9 AND L10
         231012 S ANTIOXIDANT
L12
L13
              2 S L9 AND L12
L14
          94161 S PERFUME
L15
              6 S (L1 OR L2 ) AND L14
L16
              0 S L8 AND L15
L17
          15810 S (L3 OR L6) AND L14
              0 S L17 AND (L1 OR L2)
L18
     FILE 'REGISTRY' ENTERED AT 10:13:43 ON 13 MAY 1999
                E ROSEMARY
                E ROSEMARY/CN
              3 S E6 OR E7 OR E1 OR E12 OR E5
L19
     FILE 'AGRICOLA, ANABSTR, BIOSIS, CHEMCATS, CHEMLIST, CIN, CSCHEM, DRUGU,
     EMBASE, MEDLINE, IPA, MSDS-OHS, NIOSHTIC, TOXLINE, USPATFULL, CAPLUS,
     CAOLD, BIOBUSINESS' ENTERED AT 10:32:34 ON 13 MAY 1999
L20
              0 S (L1 OR L2) AND L19
L21
              4 S (L1 OR L2) AND L12
L22
        1255210 S L8 OR L6 OR L3 AND (L21)
L23
              2 S (L8 OR L6 OR L3) AND (L21)
L24
        1569109 S FOOD OR BEVERAGE OR PERFUME OR EDIBLE
L25
             3 S L24 AND (L1 OR L2)
```

```
FILE 'CA, CAPLUS, CAOLD, BIOBUSINESS, BIOSIS, CEN, CIN, CSCHEM, CSNB,
     IFICDB, TOXLIT, USPATFULL, IPA, PIRA, PROMT, VTB' ENTERED AT 09:44:27 ON
     13 MAY 1999
L2
            619 S 29759-38-4
L3
        1901646 S EXTRACT?
L4
              6 S L2 AND L3
                                                  l
L5
             10 S L1 AND L3
         545108 S DISTILL?
L6
L7
             11 S (L1 OR L2) AND L6
L8
        1514316 S SOLVENT
L9
             53 S L8 AND (L1 OR L2)
        1954777 S ROSEMARY OR ORGANIC OR SAGE OR THYME OR GINGER OR MARIGOLD
L10
L11
             15 S L9 AND L10
L12
         231012 S ANTIOXIDANT
L13
              2 S L9 AND L12
          94161 S PERFUME
L14
L15
              6 S (L1 OR L2 ) AND L14
L16
              0 S L8 AND L15
L17
          15810 S (L3 OR L6) AND L14
L18
              0
```

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L19 ANSWER 1 OF 3 REGISTRY COPYRIGHT 1999 ACS

RN 93348-55-1 REGISTRY *

 * Use of this CAS Registry Number alone as a search term in other STN files may

result in incomplete search results. For additional information, enter HELP RN* at an online arrow prompt (=>).

CN Rosemary, Rosmarinus officinalis genuina, ext. (CA INDEX NAME)

DEF Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, etc., obtained from Rosmarinus officinalis genuina, Labiatae.

MF Unspecified

CI MAN, CTS

LC STN Files: CHEMLIST

Other Sources: EINECS**

(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

=> d ide 2

L19 ANSWER 2 OF 3 REGISTRY COPYRIGHT 1999 ACS

RN 61486-69-9 REGISTRY

CN 2-Propenoic acid,

3-[5-formyl-3-(hydroxymethyl)-4-methoxy-2-oxo-2H-pyran-6-yl]-, methyl ester, (E)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Rosellisin aldehyde

FS STEREOSEARCH

MF C12 H12 O7

LC STN Files: AGRICOLA, BIOBUSINESS, CA, CAPLUS, NAPRALERT

Double bond geometry as shown.

- 4 REFERENCES IN FILE CA (1967 TO DATE)
- 4 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> d ide 3

L19 ANSWER 3 OF 3 REGISTRY COPYRIGHT 1999 ACS

RN 8000-25-7 REGISTRY *

 * Use of this CAS Registry Number alone as a search term in other STN files may

result in incomplete search results. For additional information, enter HELP RN* at an online arrow prompt (=>).
CN Oils, rosemary (CA INDEX NAME)

```
OTHER CA INDEX NAMES:
      Essential oils, rosemary
CN
      Oils, essential, rosemary
CN
     Rosemary oil
OTHER NAMES:
CN
     Essential rosemary oil
CN
     Oils, Rosmarinus officinalis
CN
     Rosemary essential oils
CN
     Rosemary leaf oil
CN
     Rosemary oil
     Rosmarinus officinalis leaf oils
CN
CN
     Rosmarinus officinalis oil
DEF Extractives and their physically modified derivatives. Rosmarinum
     officinalis, Labiatae.
MF
     Unspecified
CI
     MAN, CTS
       TN Files: AGRICOLA, ANABSTR, BIOSIS, CHEMCATS, CHEMLIST, CIN, CSCHEM,
DDFU, DRUGU, EMBASE, IPA, MEDLINE, MSDS-OHS, NIOSHTIC, RTECS*, TOXLINE,
LC
     STN Files:
       USPATFULL, VETU
          (*File contains numerically searchable property data)
     Other Sources: DSL**, TSCA**
          (**Enter CHEMLIST File for up-to-date regulatory information)
```

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

```
ANSWER 2 OF 2 CAPLUS COPYRIGHT 1999 ACS
  AN
       1998:677844 CAPLUS
  DN
       129:306495
      Solvent extraction with fluorinated hydrocarbons
  TI
  IN
      Nicola, Mazin
  PA
      Advanced Phytonics Limited, UK
  SO
      PCT Int. Appl., 20 pp.
      CODEN: PIXXD2
 DΨ
      Patent
 LΑ
      English
 IC
      ICM B01D011-02
 CC
      63-4 (Pharmaceuticals)
 FAN.CNT 1
      PATENT NO.
                       KIND DATE
                                           APPLICATION NO.
                                                             DATE
      -----
                             -----
                                            -----
 ΡI
      WO 9845013
                             1998<u>1015</u>
                        A1
                                            WO 98-GB1037
                                                             19980408
          W: US
          RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
              PT, SE
      GB 2324050
                            A1
                                            GB 98-7452
                                                             19980408
                      (19970408
 PRAI GB 97-7130
      A process for the extn. of at least one relatively polar component from a
      material which may be naturally occurring or a synthetic mixt., the
      process comprising the steps of: (a) contacting the material with a
      solvent mixt. comprising a Cl to C4 fluorinated hydrocarbon, esp.
      1,1,1,2-tetrafluoroethane (I) and a co-solvent having a dielec. const.
 (at
      20 .degree.C) of at least 5; and (b) sepg. the charged solvent from said
     material, thereby to isolate said material. Ginger root was extd. with I
      and I mixed with 10% acetone. The ext. was dried to obtain an oil.
     yield was 0.83 and 1.43% for I and the mixt., resp.
     solvent extn fluorinated hydrocarbon; ginger root ext tetrafluoroethane
 ST
     acetone
 ΙT
     Fluoro hydrocarbons
     RL: NUU (Nonbiological use, unclassified); USES (Uses)
        (C1-4; solvent extn. with fluorinated hydrocarbons)
 ΙT
     Marigold
        (flowers; solvent extn. with fluorinated hydrocarbons)
IT
     Sage (Salvia)
     Thyme (Thymus)
        (leaves; solvent extn. with fluorinated hydrocarbons)
IT
     Ginger
        (root; solvent extn. with fluorinated hydrocarbons)
IT
     Rosemary
        (solvent extn. with fluorinated hydrocarbons)
TT
     Alcohols, uses
     Amides, uses
     Carboxylic acids, uses
     Cyanides (inorganic), uses
     Inorganic acids
     Ketones, uses
     Nitro compounds
     Organic acids
     Sulfoxides
    RL: NUU (Nonbiological use, unclassified); USES (Uses)
        (solvent extn. with fluorinated hydrocarbons)
ΙT
    Organic compounds, uses
    RL: NUU (Nonbiological use, unclassified); USES (Uses)
        (sulfur-contg.; solvent extn. with fluorinated hydrocarbons)
```

IT 811-97-2, 1,1,1,2-Tetrafluoroethane 7664-41-7, Ammonia, uses **29759-38-4**, Tetrafluoroethane

RL: NUU (Nonbiological use, unclassified); USES (Uses) (solvent extn. with fluorinated hydrocarbons)